

## NEW HAPLOPAPPUS VARIETY IN UTAH (COMPOSITAE)

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ABSTRACT. — Reported as a new variety from the Green River Formation of Uintah and Duchesne counties, Utah, is *Haplopappus armerioides* (Nutt.) Gray var. *gramineus* Welsh & F. J. Smith.

The arid Green River Formation, with its peculiar soil relations, has been the spawning ground for numerous narrow endemics. The taxon described herein is another belonging to that unique group of mound-forming, low-growing taxa that grow on the peculiar shale substrates. Relatively little variation occurs within the typical variety of *H. armerioides*. Thus, the variation represented by the taxon proposed below falls well outside that of the typical variety and substantiates its recognition. The main features that distinguish this variety from the main body of the species include the short stature and slender leaves, but the heads are also smaller, on the average, and the involucre bracts tend to be narrower. This latter feature seems to indicate an affinity with the related *H. acaulis* (Nutt.) Gray, but the bulk of the characteristics seem to represent an extension of the basic morphology of *H. armerioides*; hence, the placement with that taxon. The numerous specimens cited below have resulted from the laborious efforts of students of the Utah flora, whose contributions are gratefully acknowledged.

*Haplopappus armerioides* (Nutt.) Gray var. *gramineus* Welsh & F. J. Smith, var. nov. Similis var. *armerioides* sed in staturis humilioribus et foliis gracilioribus differt.

Perennial caespitose herbs from a thick lignous pluricipital caudex and stout taproot, the caudex branches clothed with brown to ashy marcescent leaf bases and leaves; herbage resinous-glandular, otherwise glabrous or with scabrous leaf margins; stems mainly 3–8 cm tall; basal leaves 1.5–4 cm long, 1–3 mm wide, rigid, linear, sharply mucronate, 1- or

obscurely 3-nerved; cauline leaves few, reduced upwards; heads solitary; involucre campanulate, 8–11 mm high, 10–14 mm wide; bracts in 3 or 4 series, imbricate, oblong to oval or obovate, obtuse, sometimes lobed below the apex, greenish near the apex, glabrous; rays 8–12, 10–12 mm long, yellow, 3–4 mm wide; pappus white; achenes silky-villous.

TYPE.— USA. Utah. Uintah County, T13S, R25E, S8, Atchee Ridge road, 1.4 km N of Boulevard Ridge, 2727 m elev, Green River Formation, pinyon-juniper, serviceberry, mountain mahogany, and sagebrush community, 29 May 1982, K. Thorne & B. Neely 1836 (Holotype BRY; Isotypes NY; CAS).

Additional specimens: Utah. Duchesne County, Dry Canyon, 40 km due NE of Price, 25 May 1978, E. Neese 4916. Uintah County, along Watson-Ouray rd, 8 km W of Bitter Creek, 26 May 1935, E. H. Graham 8988 (UTC); do, Big Pack Mtn., 16 May 1978, E. Neese & J. S. Peterson 4628; do, ca 45 km S of Ouray, 18 May 1978, E. Neese & J. S. Peterson 4729; do, Johnson Draw, between Hill and Willow creeks, 27 Apr. 1978, E. Neese & J.L. England 4288; do, Long Draw, 2 km S of Ouray-Rainbow road, 18 May 1979, J. L. England 1777; do, Long Draw, ca 4.5 km SW of Rainbow, 16 May 1982, E. Neese & F. J. Smith 11388, 11389; do, Long Draw, ca 4 km W of Rainbow road, 26 May 1982, K. Thorne and B. Neely 1793; do, Bitter Creek and West Fork of Asphalt Wash jct., 26 May 1982, K. Thorne and B. Neely 1798; do, T13S, R25E, S11, 30 May 1982, R. Kass & J. Trent 862; do, Atchee Ridge road, near East Seep Canyon, 7 June

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1982, F. J. Smith 1639, 1640; do, 4.5 km S of Rainbow, 15 May 1982, F. J. Smith 1596b, 1597; do, Asphalt Wash, 28 May 1982, R. Kass & J. Trent 842 (all BRY, except as noted).

There is a tendency for some plants to have acutish bracts, and the broad subapical spot is only more or less developed. Despite

the presence of these features, which are somewhat intermediate with phases of *H. acaulis*, the taxon stands with few intermediates to *H. armerioides* in a strict sense.

#### LITERATURE CITED

- HALL, H. M. 1928. The genus *Haplopappus*. Carnegie Institution of Washington. 391 pp.